## ABSTRACT OF THE DISCLOSURE

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The manufacturing method comprises: a softening step of softening a straight glass tube in a heating furnace; a moving and placing step of moving the softened glass tube so that the glass tube is placed on the top of the mandrel; and a winding step of winding the glass tube placed on the top of the mandrel around the periphery of the mandrel. The mandrel is disposed beneath the glass tube starting to get soft, and the glass tube being soft is perpendicularly lowered in order to be placed on the top of the mandrel. In the winding step, the winding speed Vr at which the glass tube is wound around the mandrel is higher than the moving speed Vs at which chuck units holding the ends of the glass tube move toward the mandrel.